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EXAMINER
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CASTELLANO, STEPHEN J

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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/807,217  
Filing Date: March 22, 2004  
Appellant(s): MCRAE, GREG E.

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Luke Pedersen  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed August 21, 2008 appealing from the Office action mailed January 29, 2008.

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**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

Claims 13-14 and 17-18 have been canceled.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is incorrect.

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

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**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon****Patents:**

6,296,135	ANDERSON et al.	10-2001
6,024,243	PALAZZO	2-2000
5,713,388	BREWER	2-1998

**Publications:**

2004/0247389	FUCHS	12-2004
DE 20004612 U1	KEWITZ	6-2000
EP 0752555	POILLUCCI	1-1997

**Official Notice:**

1. Official notice was taken in the non-final Office action mailed April 11, 2007 that plastic shroud materials and specifically, polyethylene and polyurethane, are well known. It would have been obvious to modify a metal shroud to be plastic to provide weight reduction and

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cost reduction due to lighter, less expensive plastic material. Applicant has challenged the Official notice. Brewer (5713388) teaches a shroud (base 8) and lid (cap 10) made of polyethylene and polyurethane (see col. 4, lines 13-16). Brewer is evidence that supports the Official notice.

2. Official notice was taken in the non-final Office action mailed April 11, 2007 that LPG storage is well known. It would have been obvious to modify the underground tank to be capable of storing LPG as a matter of design choice to adapt the tank to store the desired product. Applicant has challenged the Official notice. Poillucci (EP 0752555) teaches a tank for liquefied pressurized gas (LPG). Poillucci is evidence that supports the Official notice.

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

#### **Issue I:**

Claims 1-12, 15, 16, 19-34 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over German reference No. (DE 20004612) to Kewitz in view of Fuchs and Anderson et al. (Anderson).

Kewitz discloses an underground tank shroud assembly comprising a shroud 11 with top and bottom regions and a shroud lid 12, the lid is pivotable about a hinge 13. Kewitz discloses the shroud assembly in combination with an underground tank 20 with a riser 15, the riser is enclosed by the shroud and lid. Kewitz discloses the invention except for the shroud lid having two hinge couplings. Fuchs teaches a cover arrangement capable of performing as a shroud with a lid having two hinge couplings. It would have been obvious to modify the single hinge

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coupling arrangement of Kewitz to have a second additional hinge coupling to provide the ability of rotating the shroud lid to either of two opposed sides of a shroud to alter the access to prevent wind or gravity from closing the top shroud opening. This modification is motivated by the safety of this feature.

The modification would incorporate two Kewitz type hinge assemblies rather than two Fuchs hinge assemblies because the hinge assemblies of Kewitz are without doubt couplings.

Re claims 1 and 24, the modified Kewitz-Fuchs assembly has two hinge assemblies that are fixedly coupled and are not detachable or capable of decoupling. Anderson teaches a hinge that is detachable or decouples. It would have been obvious to modify one or both of the Kewitz type hinge assemblies to be detachable or capable of decoupling to allow for the lid to be opened while the other hinge assembly remains attached or coupled and operates as a hinge so that the lid doesn't get inadvertently removed yet can still be opened by pivoting about the coupled hinge assembly.

Re claims 2 and 25, the Kewitz-Fuchs combination lacks a teaching of a hinge coupling that is detachable or decouples. Anderson teaches a hinge assembly that couples a cover or lid and is detachable or decouples. Anderson teaches a hinge 26 with a bolt and nut connection (see Fig. 1 and 2 of Anderson) that allows rotation of the lid about the bolt axis and is coupled such that lifting upward on the lid will not disengage the nut and bolt connection with the hinge brackets 22. Anderson's hinge connection can be disassembled by removing the nut and sliding the bolt out of the openings in the brackets 22, at which time, the lid could be lifted off without interference from a bolted connection. It would have been obvious to add the nut and bolt connection to the rotation/fixation devices of Kewitz to add a more secure lid assembly that can't

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be removed or lifted as quickly or without the use of hand tools to remove the nuts as the Kewitz hinge assembly may include only a pin that slidably couples within pin holes on each of the lid and shroud which is easy to remove or can be easily displaced or misaligned.

Re claims 5-7 and 28-30, Official notice was taken in the non-final Office action mailed April 11, 2007 that plastic shroud materials and specifically, polyethylene and polyurethane, are well known. It would have been obvious to modify a metal shroud to be plastic to provide weight reduction and cost reduction due to lighter, less expensive plastic material. Applicant has challenged the Official notice. Brewer (5713388) teaches a shroud (base 8) and lid (cap 10) made of polyethylene and polyurethane (see col. 4, lines 13-16). Brewer is evidence that supports the Official notice.

Re claims 8, 19 and 31, Fuchs teaches a conical shaped shroud as shown in Fig. 1 and 2 at the portion where the leader line for element 10 touches the frame, the frame is tapered in this location. A circular cover and circular frame configuration with a taper would result in a conical shape to the frame in this location. The frame of Fuchs is comparable to the shroud of the invention. It would have been obvious to modify the shroud to be conical to widen the top opening of the shroud to provide easier access and more space at the top opening.

Re claims 10, 21 and 33, Official notice was taken in the non-final Office action mailed April 11, 2007 that LPG storage is well known. It would have been obvious to modify the underground tank to be capable of storing LPG as a matter of design choice to adapt the tank to store the desired product. Applicant has challenged the Official notice. Poillucci (EP 0752555) teaches a tank for liquefied pressurized gas (LPG). Poillucci is evidence that supports the Official notice.

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Re claims 9, Kewitz discloses the base region configured to conform to a convex top tank surface. Re claim 11, Kewitz discloses the shroud bracket slot 21 and tank bracket 14.

Re claim 12, It would have been obvious to modify the opening dimensions as a matter of design choice to fit the equipment ( riser, valves etc.) to be housed therein as a matter of design choice and no bigger than necessary to reduce the waste of material.

**Issue II:**

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kewitz in view of Fuchs and Anderson as applied to claim 24 above, and further in view of Palazzo (6024243).

The combination discloses the invention except for the hole in the lid. Palazzo teaches a hole in lid 66 for riser 74 (see Fig. 8). It would have been obvious to provide an access hole in the lid to provide access to the riser to alleviate the need to open the lid each time the riser needs to be accessed or to vent the riser to the atmosphere.

**(10) Response to Argument**

**Issue I: Group 1:**

It is noted that appellant's rebuttal mentions the combination of Kewitz with Fuchs to almost exclusivity. The merits of Anderson are not mentioned. Fuchs is of paramount significance because it shows two hinged mechanisms mounted on a cover or lid diametrically opposed to each other. However, Anderson adds a significant teaching of a hinge with a known detachable coupling through the use of a nut and bolt assembly. It is the teachings of Anderson



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that allow the fixed coupling assemblies of Kewitz modified by Fuchs to include at least one assembly capable of decoupling to allow the lid to pivot to the open position.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In the present case, the Fuchs in view of Kewitz combination is argued while the Kewitz in view of Fuchs and Anderson combination is not sufficiently rebutted.

In response to appellant's statement that modification of Kewitz with the rotation/fixation devices of Fuchs changes the operation of Kewitz causing Kewitz to be unsatisfactory for its intended purpose, it seems the intended purpose of a hinged lid that opens and closes is maintained when the teachings of Kewitz, Fuchs and Anderson are considered together as intended.

Appellant mentions that the teachings of Kewitz and Fuchs conflict and that they are different and mutually exclusive. However, this statement seems conclusionary and is not based on facts or a reasonable analysis.

In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the

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applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

**Issue I: Group 2:**

Appellant's discussion of Fuchs is inaccurate. Paragraph [0007] of Fuchs discusses the disadvantage of channel devices. The channel devices have hinges with leaves, the leaves are connected to the frame and cover and the cover can't be detached from the frame. These type of hinges are fixedly coupled. Fuchs' proposed improvement is hinges that are detachable or decouple rather than being fixed. Appellant states that "Fuchs teaches away from the use of hinges." (See page 13, lines 28-29 of Supplemental Appeal Brief filed August 21, 2008. This is completely wrong.

A more accurate summation of Fuchs is found in the first sentence of paragraph [0013] of Fuchs which states: "It is a fundamental aim of the invention that the cover can be pivoted toward two sides without the use of a tool, by means of hinge means comprising two rotation and fixation devices, which are disposed opposite one another." The disadvantage of covers that only open in one direction is adequately discussed in paragraphs [0008] to [0010] of Fuchs. It is within these statements and others of similar nature that the examiner bases motivation for providing a second hinge to provide a safety feature.

Appellant states that there is no indication that Kewitz needs to be modified to provide a more secure lid. There is no requirement that a primary reference must state a need for a modification.

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Appellant's discussion of the hinge brackets on one side of the cover and the toggle locking bracket on the other side of the cover of Anderson further reinforces the teaching of securing a cover at two opposed locations.

**Issue I: Group 3:**

The statement of rejection has been clarified to state that the portion of frame 10 where the leader line 10 touches the frame is tapered and would define a conical shape to the frame. Furthermore, claims 8, 19 and 31 all state "comprising" in their respective preambles. This is open language which doesn't preclude additional shapes. Fuchs need only to provide a portion with a generally conical shape to meet this limitation.

**Issue II:**

Appellant relies exclusively on the rebuttal of Issue I to carry forward to this issue and adds nothing to rebut the teaching of Palazzo and its combination.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

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For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Stephen J. Castellano/

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